IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.:	**RTSP-0160**
Inventors:	**Monia and Cowsert**
Serial No.:	**Not Yet Assigned**
Filing Date:	**Herewith**
Examiner:	**Not Yet Assigned**
Group Art Unit:	**Not Yet Assigned**
Title:	**Antisense Modulation of SMAD2 Expression**

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Date of Deposit **August 16, 2001**

I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Box PCT, Washington, D.C. 20231.

By Deborah Ehret
Typed Name: Deborah Ehret

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

(XX) In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified

application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, or before the mailing date of a first Office Action on the merits of the above-identified application, no additional fee is required.

( ) In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, therefore:

( ) Certification in Accordance with §1.97(e) is set forth below; or

( ) The fee of $**180.00** as set forth in §1.17(p) is attached.

( ) In accordance with §1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311 but before the payment of the Issue Fee, therefore included are: Certification in Accordance with §1.97(e); Petition Requesting Consideration of the Information Disclosure Statement; and the fee of $**130.00** as set forth in §1.17(i)(1).

( ) Copies of each of the references listed on the attached Form PTO-1449 (modified) are enclosed herewith.

(XX) In accordance with §1.98(d), copies of some or all of the references listed on the attached Form PTO-1449 (modified)

are not enclosed herewith because they were previously submitted to the U.S. Patent and Trademark Office in prior application Serial No. **09/255,912**, filed **February 23, 1999**, for which a claim for priority under 35 U.S.C. §120 has been made in the instant application or were submitted to the U.S. Patent and Trademark Office as the PCT Receiving Office and are referenced in the International Search Report.

Please charge any deficiency or credit any overpayment to Deposit Account No. 50-1619. This form is submitted in duplicate.

( ) The relevance of the listed references in a foreign language is as stated in the specification at pages @@.

(XX) All listed references are in the English language.

Respectfully submitted,

Kathleen A. Tyrrell
Registration No. 38,350

Date: **August 16, 2001**

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Form PTO-1449 Modified List of Patents and Publications Cited by Application (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. RTSP-0160	Serial No. 09/913684 Not Yet Assigned
	Applicant Monia and Cowsert	
	Filing Date Herewith	Group Not Yet Assigned

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AA	de Caestecker et al., *Smad2 transduces common signals from receptor serine-threonine and tyrosine kinases*, Genes Dev., **1998**, 12:1587-1592
	AB	Eppert *et al.*, *MADR2 maps to 18q21 and encodes a TGFbeta-regulated MAD-related protein that is functionally mutated in colorectal carcinoma*, Cell, **1996**, 86:543-552
	AC	Heldin *et al.*, *TGF-beta signalling from cell membrane to nucleus through SMAD proteins*, Nature, **1997**, 390:465-471
	AD	Kretzschmar *et al.*, *SMADs: mediators and regulators of TGF-beta signaling*, Curr. Opin. Genet. Dev., **1998**, 8:103-111
	AE	Nomura *et al.*, *Smad2 role in mesoderm formation, left-right patterning and craniofacial development*, Nature, **1998**, 393:786-790
	AF	Souchelnytskyi *et al.*, *Phosphorylation of Ser465 and Ser467 in the C terminus of Smad2 mediates interaction with Smad4 and is required for transforming growth factor-beta signaling*, J. Biol. Chem., **1997**, 272:28107-28115
	AG	Topper *et al.*, *CREB binding protein is a required coactivator for Smad-dependent, transforming growth factor beta transcriptional responses in endothelial cells*, Proc. Natl. Acad. Sci. U. S. A., **1998**, 95:9506-9511
	AH	Uchida *et al.*, *Somatic in vivo alterations of the JV18-1 gene at 18q21 in human lung cancers*, Cancer Res., **1996**, 56:5583-5585

EXAMINER	DATE CONSIDERED

Form PTO-1449 Modified List of Patents and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce	Docket No. **RTSP-0160**	Serial No. 09/913,803 **Not Yet Assigned**
	Applicant **Monia and Cowsert**	
	Filing Date **Herewith**	Group **Not Yet Assigned**

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AI	Waldrip et al., "Smad2 signaling in extraembryonic tissues determines anterior-posterior polarity of the early mouse embryo", *Cell* **1998** 92:797-808
	AJ	Wrana et al., "TGF-beta receptors and signaling mechanisms", *Miner. Electrolyte Metab.* **1998** 24:120-130
	AK	Zhao et al., "Abrogation of Smad3 and Smad2 or of Smad4 gene expression positively regulates murine embryonic lung branching morphogenesis in culture", *Dev. Biol.* **1998** 194:182-195
	AL	Akhtar et al., "Interactions of antisense DNA oligonucleotide analogs with phospholipid membranes (liposomes)", *Nucleic Acids Res.* **1991** 19(20):5551-5559
	AM	Crooke et al., "Antisense Research and Applications", *Heterocyclic Base Modifications in Nucleic Acids and Their Applications in Antisense Oligonucleotides,* **1993** 273-288

EXAMINER	**DATE CONSIDERED**

Form PTO-1449 Modified List of Patents and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. **RTSP-0160**	Serial No. **09/936,684** **Not Yet Assigned**
	Applicant **Monia and Cowsert**	
	Filing Date **Herewith**	Group **Not Yet Assigned**

U. S. PATENT DOCUMENTS

Examiner		Document	Date	Name	Class	Subclass
	AA	5,789,573	8-4-98	Baker et al.	536	24.5

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation YES	NO

EXAMINER	DATE CONSIDERED